

CLAIMS

What is claimed is:

- 1 1. A method, comprising:
 - 2 receiving a media clock signal;
 - 3 creating a capture pulse to synchronize the media clock signal with a
4 memory clock signal;
 - 5 capturing media data at a transition of the capture pulse; and
 - 6 storing the media data in a synchronous memory.
- 1 2. The method of claim 1 further comprising scheduling to store the media data in
2 the synchronous memory.
- 1 3. The method of claim 2 wherein scheduling to store the media data comprises
2 initiating a signal based upon a capture pulse.
- 1 4. The method of claim 1 further comprising multiplexing to store the media data in
2 the synchronous memory.
- 1 5. The method of claim 4 wherein multiplexing to store the media data comprises
2 receiving a write select signal to store the media data.
- 1 6. The method of claim 1 wherein said receiving a media clock signal comprises
2 receiving a clock signal of a queue comprising data to capture.
- 1 7. The method of claim 1 wherein said creating a capture pulse to synchronize the
2 media clock signal comprises creating a capture pulse with asynchronous logic.
- 1 8. The method of claim 1 wherein said creating a capture pulse to synchronize the
2 media clock signal comprises creating a capture pulse to synchronize the media
3 clock signal with a transition of the memory clock signal.

1 9. The method of claim 1 wherein said capturing data at a transition of the capture
2 pulse comprises capturing data from a queue.

1 10. The method of claim 1 wherein said storing the data in a synchronous memory
2 comprises writing a memory word to the synchronous memory.

- 1 11. An apparatus, comprising:
- 2 a synchronizer; and
- 3 a buffer coupled to said synchronizer; and
- 4 a synchronous memory coupled to said buffer.
- 1 12. The apparatus of claim 11, further comprising a multiplexer coupled to more than
2 one buffer.
- 1 13. The apparatus of claim 11, further comprising a scheduler coupled to said
2 synchronous memory.
- 1 14. The apparatus of claim 11, further comprising an inbound register coupled to said
2 buffer.
- 1 15. The apparatus of claim 11, wherein said synchronizer comprises an asynchronous
2 state machine.
- 1 16. The apparatus of claim 11, wherein said buffer comprises a buffer to capture data
2 from an inbound register.
- 1 17. The apparatus of claim 11, wherein said synchronous memory comprises a
2 synchronous random access memory.
- 1 18. The apparatus of claim 11, wherein said synchronous memory comprises memory
2 to store data from an inbound register.

1 19. A system, comprising:

2 a host;

3 a deep memory node coupled to said host; and

4 a physical layer device coupled to said deep memory node.

1 20. The system of claim 19, wherein said host comprises a host to initiate a large
2 packet transaction.

1 21. The system of claim 19, wherein said deep-memory node comprises:

2 a synchronizer; and

3 a buffer coupled to said synchronizer; and

4 a synchronous memory coupled to said buffer.

1 22. The system of claim 19, wherein said deep-memory node comprises a
2 synchronous memory to handle a large-packet transaction.

1 23. The system of claim 19, wherein said target device comprises a physical layer
2 device to respond to a large-packet transaction.

- 1 24. A machine-readable medium containing instructions, which when executed by a
2 machine, cause said machine to perform operations, comprising:
3 receiving a media clock signal;
4 creating a capture pulse to synchronize the media clock signal with a
5 memory clock signal;
6 capturing media data at a transition of the capture pulse; and
7 storing the media data in a synchronous memory.
- 1 25. The machine-readable medium of claim 24 further comprising scheduling to store
2 the media data in the synchronous memory.
- 1 26. The machine-readable medium of claim 24 further comprising multiplexing to
2 store the media data in the synchronous memory.
- 1 27. The machine-readable medium of claim 24 wherein said creating a capture pulse
2 to synchronize the media clock signal comprises creating a capture pulse with
3 asynchronous logic.
- 1 28. The machine-readable medium of claim 24 wherein said creating a capture pulse
2 to synchronize the media clock signal comprises creating a capture pulse to
3 synchronize the media clock signal with a transition of the memory clock signal.
- 1 29. The machine-readable medium of claim 24 wherein said capturing data at a
2 transition of the capture pulse comprises capturing data from a queue.
- 1 30. The machine-readable medium of claim 24 wherein said storing the data in a
2 synchronous memory comprises writing a memory word to the synchronous
3 memory.